MONTHLY WEATHER REVIEW.

(GENERAL WEATHER SERVICE OF THE UNITED STATES.)

WASHINGTON, D. C., OCTOBER, 1882.

WAR DEPARTMENT,

OFFICE OF THE CHIEF SIGNAL OFFICER,

DIVISION OF TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

This REVIEW presents a general summary of the meteorological data collected by the Signal Service during the month of October, 1882.

The most prominent meteorological feature of the month has been the tropical hurricane designated as number vi., on chart i., AREAS OF LOW BAROMETER. Great loss of life and damage to property occurred during its passage over Cuba. The cyclone lost much of its energy after leaving Cuba, and before reaching the coast of the United States. Early warnings of its approach were sent to all ports on the Atlantic and the Gulf of Mexico, and the number and value of the vessels detained in the different ports on account of the warnings are published in tabular form in connection with the description of the cyclone.

An additional chart has been prepared, designated as CHART SUPPLEMENTAL TO NUMBER I., and is issued with the REVIEW for this month; it shows the tracks of storm-centres on the Atlantic ocean, after they left the coast of America, as prepared from data received up to November 25th.

With the exception of this cyclone there have been no marked meteorological features during the month. But few local storms have occurred, none of them especially severe. The month has been mild and generally favorable to agricultural pursuits.

That part of the REVIEW referring to International Meteorology presents the general weather conditions which prevailed over the northern hemisphere during the month of August, 1880. The special features in the meteorology of that month were: the high temperature, above the normal, that prevailed over northwestern Europe; the increase of barometric pressure; and the deficiency in rainfall over the same district. Chart v. exhibits the paths of barometric minima for November, 1880. This chart exhibits the tracks of the two typhoons that occurred in the China sea during the month, and which were the last typhoons of the season of 1880.

In the preparation of this REVIEW, the following data, received up to November 20th, have been used; viz.: the regular tri-daily weather charts, containing the data of simultaneous observations taken at one hundred and thirty-six Signal Service stations and fifteen Canadian stations, as telegraphed to this office; one hundred and ninety-seven monthly journals, and one hundred and eighty monthly means from the former, and fifteen monthly means from the latter; two hundred and five monthly registers from voluntary observers; fifty-two monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; Marine Reports, through the co-operation of the "New York Herald Weather Service;" abstracts of Ships' Logs, furnished by the publishers of "The New York Maritime Register;" monthly reports from the local weather services of Indiana, Kansas, Nebraska, and Missouri, and of the Central Pacific railway company; trustworthy newspaper extracts; and special reports.

BAROMETRIC PRESSURE.

[Expressed in inches and hundredths.]

The mean barometric pressure for the month of October, 1882, over the United States and Canada, is shown by the isobarometric lines (in black) on chart ii. The region of highest mean-pressure is inclosed by the isobar of 30.1, and covers a narrow strip of country extending from New England southwestward to eastern Tennessee. Within this region the mean pressures are from 30.1 to 30.12, except on the summit of Mount Washington, where it is 30.17. Westward and southwestward of this high-pressure area the barometric means gradually decrease, and are lowest in the upper Missouri valley, the extreme northwest, and in the southern plateau. The lowest monthly means reported are: 29.84, 29.86, and 29.88 from Fort Bennett and Fort Buford, Dakota, and Saint Vincent, Minnesota, respectively. Two isobars of 29.9 appear upon the chart; one incloses parts of northern Minnesota, Dakota, and northeastern Montana, and the other, a small area in southwestern Arizona. West of the Rocky mountains the pressure is highest over the middle Pacific coast region, the highest monthly mean, 30.05, being reported from San Francisco, California.

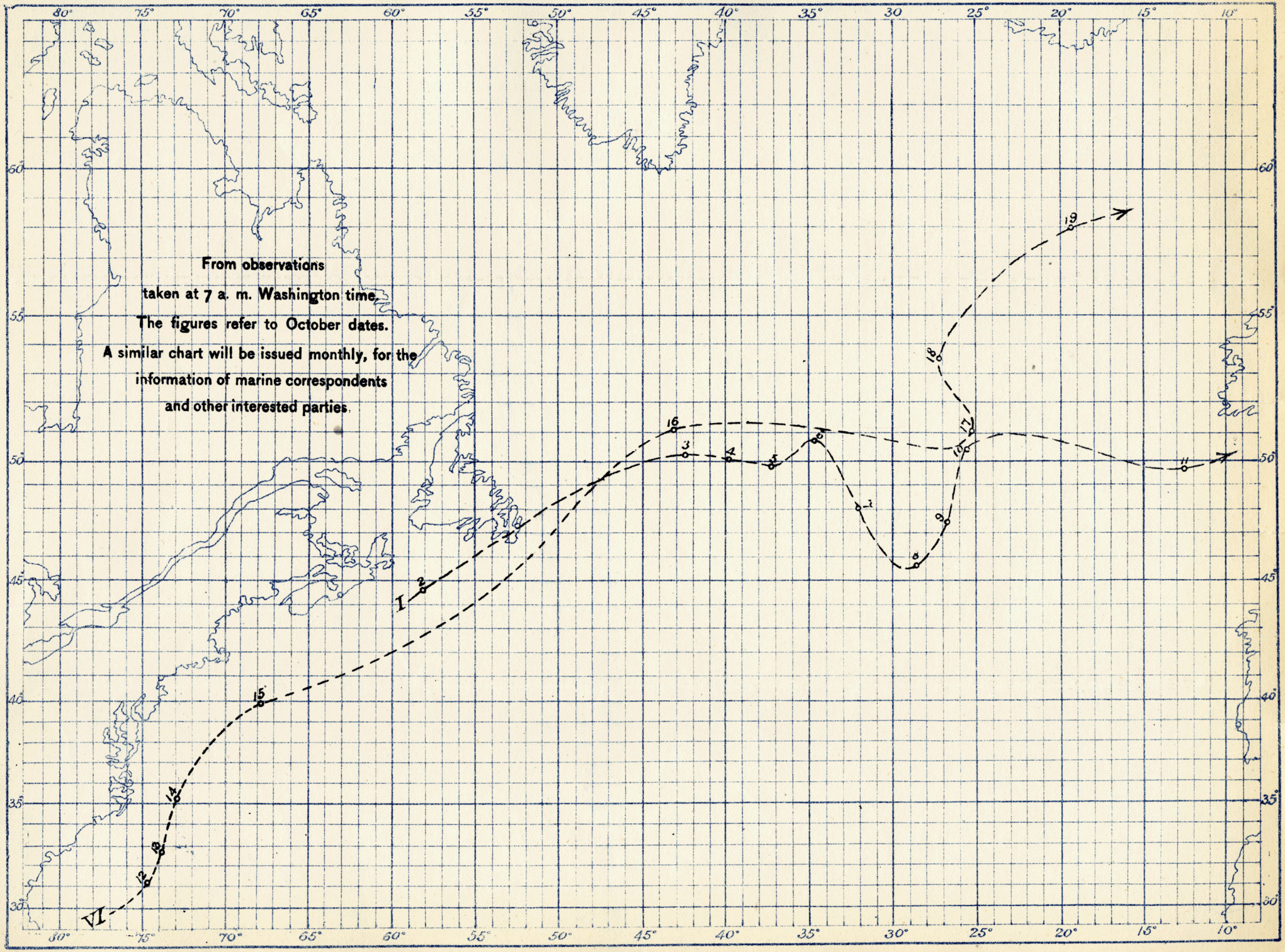
Compared with the means of the previous month, there is an increase of pressure ranging from 0.01 to 0.13 at stations east of the eighty-second meridian. West of this meridian to the Rocky mountains, except at Denver and Pike's Peak, (where there is an increase of from 0.02 to 0.08,) the pressure is from 0.01 to 0.13 lower, the decrease being greatest in the upper lake region, the extreme northwest, and the upper Mississippi and Missouri valleys. The pressure is also lower in the north Pacific coast region and at a few stations in the northern and southern plateau districts. In the middle and south Pacific coast regions, and in the middle plateau, an increase, ranging from 0.02 to 0.14, occurs; it is most marked in the last-named district.

DEPARTURES FROM THE NORMAL VALUES FOR THE MONTH.

Compared with the October means of previous years the pressure is below the normal everywhere, except at a few of

CHART SUPPLEMENTAL TO NO. I.,

Showing tracks of storm-centres on the Atlantic Ocean, after leaving the coast of America, based upon data received up to November 25.



The continuation of these tracks will be given on International Chart for October, 1882.